



January 4, 1963

STATINTL



SUBJECT: HTA/5 Processor

Dear Sir:

Please find enclosed a schematic diagram for the proposed mix, tempering and replenishment circuits for the developing and fix solutions for the above machine. The diagram shows the support system for the developer tank only, but the fix system will be a duplicate of this.

STATOTHR

This circuit has been discussed with [redacted] and at his suggestion is forwarded for your information and as part of his policy of keeping you informed as to the design progress on this machine.

The hold and mix tanks are of 120 gallon capacity, with the mix tank fulfilling the additional function of a replenishment tank.

Selection of the appropriate valves will permit pumping to and from the hold and mix tanks and the processor tanks, and will allow the transfer pump to be used as a standby for the re-circulation pump should the necessity arise.

The normal method of use will be to mix solutions and transfer to the processor tanks (or hold tanks, if desired) and then mix the replenisher solution. The mix tank is then used as the replenisher tank and the solution pumped into the vacuum side of the re-circulation pump through a flowmeter.

To change the processor function, the machine tanks would be drained or pumped into the hold tanks. The unused replenishment solution would require draining to permit the tank to be used for the mixing of the new solution required, which would then be transferred to the processor tank. Suitable replenishment solution would then be mixed. Temperature control of the

developer and fix solutions will be accomplished by chilled water pumped through a Heleflow heat exchanger in conjunction with a 3 KW heat exchanger in each solution line. The circuit will be controlled by a resistance thermometer bridge control system operating a solenoid valve in the chilled water line to the Heleflow or a relay in the heat exchanger circuit. A set point indicator will be provided on the control console.

With regard to the replenishment system it should be noted that the mix tank capacity of 120 gallons may not be sufficient for a "straight run" of 20,000 feet of film without topping up, assuming that approximately 200 gallons of replenishment would be required for 20,000 feet of film.

The refrigerator unit and chilled water tank is shown for reference purposes only since confirmation was given by you to Frank Finnegan that the chilled water would be supplied by the operator.

Manufacturing drawings are in preparation based on the above system, and will be completed on the basis that the system is acceptable in the absence of notification to the contrary.

I hope that the arrangement described covers all your operational requirements, and look forward to hearing from you at your earliest convenience.

Yours truly,



STATOTHR

Project Engineer

IR/ew

encls

cc:



STATOTHR